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(71)Applicant : HITACHI LTD

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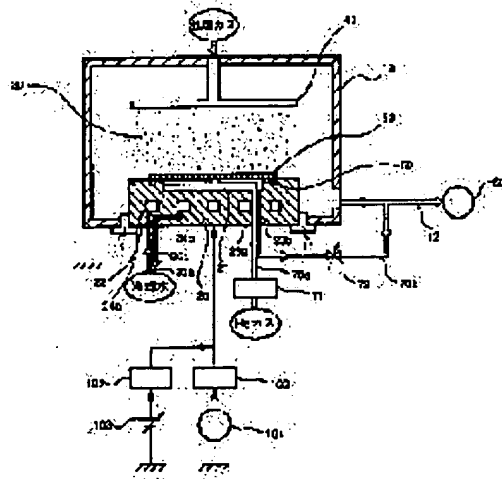
(72)Inventor : KAKEHI YUTAKA
NAKAZATO NORIO
FUKUSHIMA YOSHIMASA
HIRATSUKA YUKIYA
SHIBATA FUMIO
YAMAMOTO NORIAKI
TSUBONE TSUNEHICO

(54) SAMPLE HOLDING METHOD FOR VACUUM PROCESSING SYSTEM

(57)Abstract:

PURPOSE: To provide a sample holding method for attracting and holding a substrate without requiring high electrostatic attracting force.

CONSTITUTION: A sample 50 for vacuum processing is held, while being attracted electrostatically, on a sample stage mounted on a lower electrode 20 in a vacuum processing chamber 10 and a heat conduction gas is fed between the rear side of the sample 50 and the sample stage through a gas supply path 23a. The differential pressure between the processing gas in the vacuum processing chamber 10 and the heat conduction gas on the rear side of the sample is decreased as low as possible within the allowable range of thermal resistance between the sample and the sample stage thus decreasing the electrostatic attraction force within the range of attraction force required for preventing the floating of the sample. The area on the sample stage where the sample is attracted electrostatically is set at 1/5 or more of the rear surface area of the sample. this method restrains increase of gap between the rear surface of the sample and the sample stage without requiring high electrostatic attraction force.



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